

SEPTEMBER 2017

Society & Environment

A monthly publication issued by Zayed International Foundation for the Environment



إكسبو 2020
دولة الإمارات العربية المتحدة
DUBAI, UNITED ARAB EMIRATES

Issue 175

creating green communities for a better tomorrow



UAE President declares 2018 as the
'Year of Zayed'

Dr. Thani Al-Zeyoudi lauds the contributions of the UAE's women to national sustainable development efforts



Emirates Appreciation Award for the Environment

Together for a green home

Chairman's Message



Prof. Mohammed bin Fahad
Executive Editor

Since its formation in 1971, the UAE has witnessed phenomenal development, achieving record-breaking rates of growth in all fields and transforming into one of the most thriving modern states in the world. Apart from happy and contented citizens, the UAE has attained sustainable growth in many other fields, including the economy, trade, investment and communications, in addition to information, technology, tourism, infrastructure and human and social development.

In addition, the UAE has also achieved excellent rates of gender equality in the quality of education, healthcare, and political and economic contributions.

At the heart of all these achievements lies the wise policies and essential foundations laid down by the prudent leadership of the founding father of the country, the late Sheikh Zayed bin Sultan Al Nahyan. More than a decade after his passing away, the people of the UAE remember him for his tolerance, determination and commitment to the building of a better life for his people, as well as his emphasis on the need for loyalty to the nation.

As 2018 marks the 100th birth anniversary of the founding father of the UAE, the historic occasion will be commemorated as the Year of Zayed, according to a recent declaration by President HH Sheikh Khalifa bin Zayed Al Nahyan. I believe there cannot be a greater way to celebrate his timeless legacy and promote the values that he exhibited throughout his life.

A pioneer of charitable and developmental aid in the 20th century, Sheikh Zayed's name is in the hearts and minds of individuals who have benefited from the various charitable projects and organisations that the late ruler set up and supported. His vision and generosity is felt not only throughout the Arab world but also beyond.

The solid foundations Sheikh Zayed laid down for a strong and united nation will continue to guide us as we move forward to a new era of development and sustainable growth.

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“The noble values and traditions of the late Sheikh Zayed represent a true wealth and a source of pride for all those in the UAE, an inexhaustible well of giving from which current and future generations learn how to sacrifice all that is precious for the homeland.”

- HH Sheikh Mohammed bin Rashid Al Maktoum



See

o m o r r o w

From the Managing Editor



Dr. Meshgan Al Awar
Secretary General
Zayed International Prize for
the Environment

The UAE's journey of giving will continue to be celebrated the next year as 2018 has been declared as the Year of Zayed, to mark the milestone 100th anniversary of the birth of the nation's late founding father, Sheikh Zayed bin Sultan Al Nahyan.

While the nation will celebrate the deeply rooted values, principles and traditions that Sheikh Zayed espoused throughout his life and which have now become part of our Emirati identity, it will also pay tribute to the environmental campaigns that he spearheaded, transforming the desert into a green haven in the process.

Long before the term 'sustainable development' became widely recognised, the late Sheikh Zayed had made conservation and protection of the environment a national priority, almost five decades ago. By promoting agriculture, development of water resources management system, desertification and wildlife conservation, he looked at the totality of the ecosystem to translate his vision into a reality. The result was a blueprint for making our world more equitable, sustainable and liveable - a framework that is in harmony with the 2030 Agenda for Sustainable Development Goals adopted by the UN in 2016.

Sheikh Zayed's far-sighted vision has led the UAE to adopt an innovative approach to policymaking leading to lasting results in sustainable development and commitment, and continues to impact lives even today.

The Zayed International Prize for the Environment, launched almost two decades ago under the patronage of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, is honored to bear the name of the leader who dedicated his life for environmental protection and sustainable development to ensure that it is safeguarded for present and future generations.

I am proud to be part of the Zayed International Foundation for the Environment where the spirit of this environmentalist who has also raised the stature of the UAE as a generous donor of international assistance, is celebrated every single day through its activities, initiatives and collaboration agreements with global stakeholders for the benefit of mankind.

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Cover Story

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President Khalifa declares 2018 as the 'Year of Zayed'



[The 'Year of Zayed' will highlight the role of the founding father in establishing the UAE Federation and his local, regional and international achievements.](#)

"Sheikh Zayed's real wealth was not in materialism but in his investment in the men and women who build the future of their nation. Therefore we are a nation determined to follow in his footsteps, empowering Emirati people in all fields to contribute to their country's comprehensive and sustainable development."

- His Highness Sheikh Khalifa bin Zayed Al Nahyan

His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates, has declared 2018 the 'Year of Zayed' in the United Arab Emirates.

The year 2018 marks 100 years since the birth of the late founding father Sheikh Zayed bin Sultan Al Nahyan, and the announcement was held on the anniversary of the late Sheikh Zayed's Accession Day - the day he assumed leadership in Abu Dhabi on 6th August 1966, marking the start of a new epoch in the history of the UAE.

The 'Year of Zayed' will highlight the role of the late leader in establishing the UAE Federation, and his local, regional and international achievements.

The 'Year of Zayed' will seek to achieve several objectives, including being a time to highlight the role of the late Sheikh Zayed bin Sultan Al Nahyan in establishing the UAE and consolidating its foundations of modern development, with an emphasis on the nation's local, regional and global achievements, and continue to form the basis of this country's progress.



THE YEAR of Zayed will encourage the involvement of people of all ages, nationalities, faiths and backgrounds in the UAE and internationally.

The Year of Zayed will seek to share Sheikh Zayed's values and principles, as well as one of the greatest world leaders, with an inspirational wisdom, vision and patience.

The Year will also be an opportunity to portray Sheikh Zayed's legacy in forthcoming projects and initiatives that express his vision and values.

Year 2018 to celebrate Sheikh Zayed's vision

In a message announcing the declaration, President HH Sheikh Khalifa said that setting 2018

as the Year of Zayed reflects the unique standing that the late leader holds with every Emirati as the founding leader of the Union. With his wisdom and goodness, Sheikh Zayed set the foundations of modern development across all sectors in the UAE.

His generosity is experienced not only in the UAE and the Gulf region, but also throughout the Arab world and internationally, with contributions and initiatives that continue to reflect his unerring skill as a modern leader, who gained the respect of so many people around the world.

He said: "On this day, August 6, a new era dawned upon us all when the late Sheikh Zayed assumed command of the Abu Dhabi government, and began the march towards unity, prosperity and societal development."

Sheikh Khalifa pointed out that the late Sheikh Zayed was able to lay down solid foundations for a strong, united nation that balanced the requirements for modernity while preserving the cultural and social heritage of the UAE. This effective model has been a source of inspiration for countries seeking progress.



“The Year of Zayed is a great national occasion when we will proudly share memories of the life of the founding father, Sheikh Zayed bin Sultan Al Nahyan, and his gift to us of deeply-rooted values, principles and traditions that have become part of our Emirati identity.”

The President called upon the nation’s people to uphold the noble values instilled in them by the late Sheikh Zayed, including those of wisdom, respect, determination, loyalty, a sense of belonging to the nation, and a willingness to make sacrifices at whatever cost.

President Khalifa continued to say, the recognition of these values and our fulfillment of

them will encourage the unity of our nation and strengthen our resilience in facing risks and challenges.

He also called for making 2018 a year of achievements, initiatives, events and programmes that reflect the great historical personality of the late Sheikh Zayed, highlighting his pioneering role, his vision and his sound leadership.

Sheikh Khalifa said that as we celebrate the Year of Zayed, we shall reaffirm our commitment to continue his legacy and work, guided by his wisdom and vision.

The ‘School of Zayed’, he said, is a source of inspiration for every step that the UAE takes; a solid

foundation for the consolidation of the federal structure of our young nation; and a stepping stone for its future, full of strength and respect, leading up to the creation of one of the finest countries in the world.

He stressed that the legacy of the late Sheikh Zayed will remain alive not only in the hearts of the UAE people and Arab and Muslim nations, but throughout the world.

This, the President said, is because the generosity of the late Sheikh Zayed whose initiatives and campaigns helped those in need around the world. Thus, declaring 2017 as the ‘Year of Giving’ was an extension of his limitless giving.

“Sheikh Zayed has instilled in us the willpower and determination to challenge and achieve the impossible. This is why we are always convinced that we are capable of being pioneers and to become one of the best countries in the world.”

- His Highness Sheikh Mohammed bin Rashid Al Maktoum



Sheikh Khalifa added, “The Year of Zayed will be a year in which the nation preserves the legacy of Zayed, and our people will work together to fulfil the vision of Zayed.”

In his comments, His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, called for the launch of a comprehensive framework to develop an integrated and consolidated agenda that activates initiatives within all federal and local institutions.

“We celebrate the centennial anniversary of the birth of one of the greatest and most noble men who dedicated his life for the

present and future of the nation.”

Sheikh Mohammed said: “We are inspired by the Zayed school of leadership and management. With the founding blocks of the Union State placed by the late Sheikh Zayed, from which we are all reaping the benefits, we will continue this path and look forward with optimism to the future.”

He continued, “This is why we have launched the “UAE Centennial 2071”, which includes a comprehensive government programme with a national strategy to enhance the country’s reputation and soft power and ensure that there are sustainable and diverse sources of government revenues.”

The aims, he said, are to invest in education that focuses on advanced technology, to build a system of ethical values for our future generations, to boost productivity of the national economy, and to enhance community cohesion.

“The noble values and traditions of the late Sheikh Zayed represent a true wealth and a source of pride for all those in the UAE, an inexhaustible well of giving from which current and future generations learn how to sacrifice all that is precious for the homeland. This is a supreme goal that we adhere to, and one to which we all work towards, to have the strength needed to survive difficulties no matter how large they may be, armed



with perseverance and patience.”

“Sheikh Zayed has instilled in us the willpower and determination to challenge and achieve the impossible. This is why we are always convinced that we are capable of being pioneers and to become one of the best countries in the world. He inspired us to see his way to the future, to follow in his footsteps with confidence and insight, and to consolidate the gains and achievements,” he added.

Sheikh Mohammed also highlighted the successful management skills of the late Sheikh Zayed, who, he said, had the ability to make the right decisions in all fields and implement them, thus

establishing the foundations for a successful and effective government administration for our time.

Meanwhile, His Highness Sheikh Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, said, “The Year of Zayed is an occasion to celebrate the achievements of the late Sheikh Zayed bin Sultan Al Nahyan and their future impact. The UAE, under his leadership, has been able to rise to the ranks of developed nations and achieve great development at all levels.”

“The Emirati citizen was the most important element of development, as Sheikh Zayed’s

main objective was to invest in building the Emirati person, believing in his or her ability to actively participate in the building of the nation. He has always emphasised that man is the most essential element of progress, and that the most precious wealth of this country is its people, who we must take care of well. This is the philosophy that drives the process of comprehensive and sustainable development of this country.”

“The best way to celebrate the Year of Zayed would be by spreading Zayed’s glorious human and cultural legacy via all the people of the UAE, to continue his inspirational and noble values, and introduce these

“The Emirati citizen was the most important element of development, as Sheikh Zayed’s main objective was to invest in building the Emirati person, believing in his or her ability to actively participate in the building of the nation.”

- His Highness Sheikh Mohamed bin Zayed Al Nahyan



ideals to new generations.”

Sheikh Mohamed added that the late leader laid down the foundations for an integrated school of thought in governance and politics through interactions with UAE people. Sheikh Zayed’s doors were always open to the citizens of the UAE to enable him to be better acquainted with their needs. He had an ability to make decisions without hesitation, especially those related to the security and stability of the homeland and its interests.

Sheikh Zayed applied a unique system of noble morals and values that shaped the conscience of the UAE people, creating a positive image of the

UAE held globally. “The UAE’s image is founded on a core belief system of tolerance and coexistence. Nations across the world call to uphold and strengthen this belief in light of the growing fanaticism and hatred that threatens international peace and security.”

“The late Sheikh Zayed established a global school of tolerance and coexistence because he knew that from the Union’s beginnings, the UAE’s uniqueness lay in its ability to welcome different races, religions, and cultures without abandoning its social and cultural identity. The principles in which the late ruler believed, and strived for, were aimed at creating a world of coexistence

and peace,” he added.

Sheikh Mohamed Bin Zayed said, “To celebrate the Year of Zayed in the best way possible, we must ensure that the glorious journey is continued, sharing the human and cultural heritage with all the people of the UAE, to carry forward its noble legacy and values, and inspire future generations.”

“Sheikh Zayed is an example for every Emirati citizen, and loyalty to his legacy must be followed through his principles and values. Today, we need to learn from these authentic national values, and draw lessons from them in order to continue developing the nation’s renaissance on the global map.”

COVer Story

12 c r e a t i n g g r e e n c o m m u n i t i e s

‘Emirati women’s involvement in sustainability is a remarkable and exemplary journey’



[On the occasion of the third Emirati Women’s Day, Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, lauds the contributions of the UAE’s women to national sustainable development efforts.](#)

As the UAE celebrated the third Emirati Women’s Day on 28th August, 2017, to commemorate significant milestones in empowering its women, the Ministry of Climate Change and Environment saluted the invaluable contributions of the UAE’s women to national sustainable development efforts.

In a statement marking the occasion, Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, said, “Four decades ago, when the UAE federation was established in December 1971, various factors

ensured that only a handful of Emirati women had the capacity to participate in developmental efforts.

“Since then, we have witnessed a sea of change taking place before our eyes. Our visionary leadership paid particular attention to the participation of Emirati women in the nation-building process.

“The government realised early on that to truly achieve sustainable development, the real and active participation of the entire population, both men and women, was mandatory,” he added.

Women in the UAE have traditionally stood head to head with their male counterparts in driving development. This was a legacy established by the founding father of the UAE, late Sheikh Zayed bin Sultan Al Nahyan, the minister added. “He firmly believed that women are not merely half of the society regarding numbers, but also in terms of their participation in the responsibility of creating and nurturing new generations through holistically informing and educating them.”

Dr. Thani Al-Zeyoudi went on to



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WOMEN IN the UAE have traditionally stood head to head with their male counterparts in driving development.

say, “The UAE leadership has prioritised education, capacity building and empowerment as core focus areas for human development, aimed at shaping the national leaders of tomorrow. In just a few decades, Emirati women have become essential partners in accelerating the country’s development efforts and achieving its global ambitions.”

Emirati women currently occupy nearly two-thirds of key government jobs and leadership positions, he said, adding that they play a contributory and

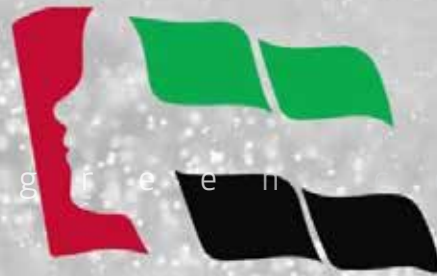
proactive role in the private sector as employees and businesswomen.

For example, at the Ministry of Climate Change and the Environment, Emirati women are a force to reckon with today, occupying over 55 percent of the total workforce, distributed among different grades and technical and administrative areas of specialisation. They are excellent, enthusiastic and willing workers and true team players, Al-Zeyoudi explained.

“Looking at the Arab world today,

we realise that the progress achieved by Emirati women is neither sudden nor unexpected. Rather, it is the logical and satisfying outcome of years of sustained hard work by these women that speaks volumes of their exceptional ability to seize available opportunities and make the best of them. This determination and unyielding attitude have helped them develop their knowledge and skills and enhanced their ability to join in our country’s advancement as true partners.

In his statement, the minister



يوم المرأة الإماراتية EMIRATI WOMEN'S DAY أغسطس 28 August

quoted the UAE President HH Sheikh Khalifa bin Zayed Al Nahyan as saying, "The recent heights achieved by Emirati women in all fields are not sudden developments, but the result of a long process established by the founding father of the UAE, the late Sheikh Zayed bin Sultan Al Nahyan."

"The role of women in achieving sustainable development is inseparable from their role in other fields. Given its global implications, it is perhaps, even more vital. More than 80 percent of Emirati women demonstrated a high level of environmental awareness as confirmed by the results of the 'Survey on measuring the environmental

awareness of women in the UAE,' conducted by the UAE General Women's Union," Dr. Al-Zeyoudi continued.

"We are keen to encourage and foster the capabilities, awareness and enthusiasm of Emirati women and employ them in the best possible way to achieve sustainable development in line with the objectives of the UAE Vision 2021 and the UAE Centennial Plan 2071.

"In commemorating Emirati Women's Day this year, I am pleased and privileged to extend my heartfelt congratulations to the most inspiring and influential woman in our country today, the Mother of the Nation, Sheikha Fatima bint Mubarak. I

express my deepest admiration and appreciation to the UAE's women for their excellent efforts in ensuring the progress of our society and homeland, and for helping the UAE flag fly high across global skies," he concluded.





Dubai to host 7th GCC Municipalities and Smart Cities Conference

Executives, decision-makers, mayors and key policy-makers from government organisations will gather in Dubai on 27th and 28th September, 2017, for the 7th GCC Municipalities and Smart Cities Conference.

Participants will discuss the changing role of the municipality in the era of world cities transformation, role models and innovative cities of the future while highlighting strategies to transform provinces and urban neighbourhoods into innovative cities and municipalities.

Organiser Datamatix says the event covers all the aspects of smart city development and aspires to discuss the challenges

in preventing fire in cities and upgrading public safety. It will also explore future city investment strategies, smart transportation and mobility, and growing threats to social stability and societal relationships in the era of global technology. The aim is to improve infrastructure, increase sustainability and enhance resilience.

The event provides a premier platform for knowledge exchange and peer-to-peer engagement as well as a central platform for the interchange of best cases and business deals bringing together the highest level of stakeholders. This is in the context of smart cities development to co-create innovative and integrated urban solutions for a more liveable and

sustainable future.

Cities are experiencing an accelerating pace of urbanisation with growing complexity and this is putting more pressure on municipalities to innovate and become smarter. All the civic bodies are competing to make cities liveable for people and to do so in a sustainable manner. Leading regional and international industry experts will deliver insightful talks on pertinent topics through keynote presentations and interactive panel discussions.



Innovation Hall at WETEX 2017 to showcase latest innovations and inventions



The Innovation Hall aims to stimulate innovation and promote environmentally friendly practices and raise the contribution of sustainable solutions to enhance the country's global competitiveness in environmental sustainability.

Dubai Electricity and Water Authority, DEWA, has invited local and international universities to participate in the Innovation Hall, which is organised as part of the 19th Water, Energy Technology and Environment Exhibition, WETEX, 2017.

The exhibition is held under the directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and under the patronage of H.H. Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai, UAE Minister of

Finance and President of DEWA, from 23rd to 25th October at Dubai International Convention and Exhibition Centre. The exhibition is held under the theme 'at the forefront of sustainability'.

"The Innovation Hall at WETEX, which will host more than 14 universities, will contribute to the foundations of environmental sustainability. It is in line with the UAE Green Growth Strategy, which was unveiled by Sheikh Mohammed bin Rashid Al Maktoum, under the theme Green Economy for Sustainable Development, and the UAE

Vision 2021, which aims to achieve sustainability, as well as Dubai Clean Energy Strategy 2050, which aims to transform Dubai into a global hub for clean energy and green economy. We invite local and international universities to participate in the WETEX Innovation Hall to showcase their knowledge in environmental issues, and to present their research studies and innovative projects in the fields of energy, water, environment and technology," said Saeed Mohammed Al Tayer, MD & CEO of DEWA, and Founder and Chairman of WETEX.



e s f o r a b e t t e r t o m o r r o w

THE INNOVATION HALL at WETEX 2017, which will host more than 14 local and international universities, will contribute to the foundations of environmental sustainability.

“We look forward to the essential role that universities play in the progress of the energy, environment and water sectors. The participation of universities in the Innovation Hall during the last edition of the exhibition was influential in enriching WETEX; a global scientific platform that brings together scientists, thinkers, innovators, academics and students from all over the world,” he added.

The Innovation Hall aims to stimulate innovation and promote environmentally friendly practices and raise

the contribution of sustainable solutions to enhance the country’s global competitiveness in environmental sustainability. The Hall will feature open-ended panel discussions to provide an overview of the most important innovations and inventions in the traditional and renewable energy sectors, water, environment, oil, gas and related fields over three days. Universities will also have an important role to play in highlighting the latest scientific research trends in these sectors.

The 19th WETEX will be held under the umbrella of the Green

Week, in conjunction with the second Dubai Solar Show, and the fourth session of the World Green Economy Summit, with the participation of leading experts in the fields of energy, finance and business, as well as government leaders and international organisations.



Recycling

18 creating greener communities

Dnata commits to a greener future with its new recycling programme



The projection for 2017 is an estimated 140 pieces of ground services equipment being recycled, leading to savings of approximately over AED 13 million, and reducing waste by 250 tonnes.

Dnata has ramped up its recycling programme for its fleet of 12,000 units of ground services equipment, GSE, at the Dubai International Airport, DXB, and Dubai World Central, DWC. Since the launch of the recycling programme this year, over 80 units have been renewed at the GSE maintenance base, reducing waste generated from these equipment by 110 tonnes while passing all safety and quality checks.

The projection for 2017 is an estimated 140 pieces of GSE being recycled, saving the

company approximately over AED 13 million, and reducing waste by 250 tonnes.

As GSE reach the end of their life cycle, they were previously replaced with newer versions. The dnata GSE maintenance facility, located at DXB airport spans 36,000 sqm and employs 1,145 dedicated team members who carefully check these equipment for any faults before replacing parts that need renewing, therefore extending the lifespan to up to 18 years.

“Our reality is that sustainability

is necessity, not a choice, and at dnata, we endeavour to meaningfully fulfil our environmental responsibility wherever we operate. Our GSE recycling programme in Dubai provides us with a tangible way to reduce our carbon footprint at the source, rather than carbon offsetting as a way of merely clearing the corporate conscience,” said Gary Chapman, President, dnata.

“It has been rewarding to see the impact of this initiative, and it is the start of many initiatives dnata has in the pipeline to bring



DNATA PLANS to replace all current diesel forklifts by the end of 2017 with electric alternatives, reducing the carbon footprint at its cargo operations by 80 percent.

about a change in the way we use resources, in our effort to promote sustainability," he added.

Other initiatives for a greener operation also include the conversion of all forklifts in dnata's cargo operations to electric. Out of a fleet of 102 forklifts in Dubai, currently, already 73 are electric, with the rest being diesel powered.

The plan is to replace all current diesel forklifts by the end of 2017 with electric alternatives, reducing the carbon footprint at dnata's cargo operations by 80

percent, generating a fuel savings (consumption) of 200,000 litres per year, and CO2 emissions reduction of 47 tonnes per year. Globally, over 300 pieces of environmentally-friendly electric tow trucks, forklifts, conveyor belts and push back tractors are in dnata's operations today and this number is on the rise.

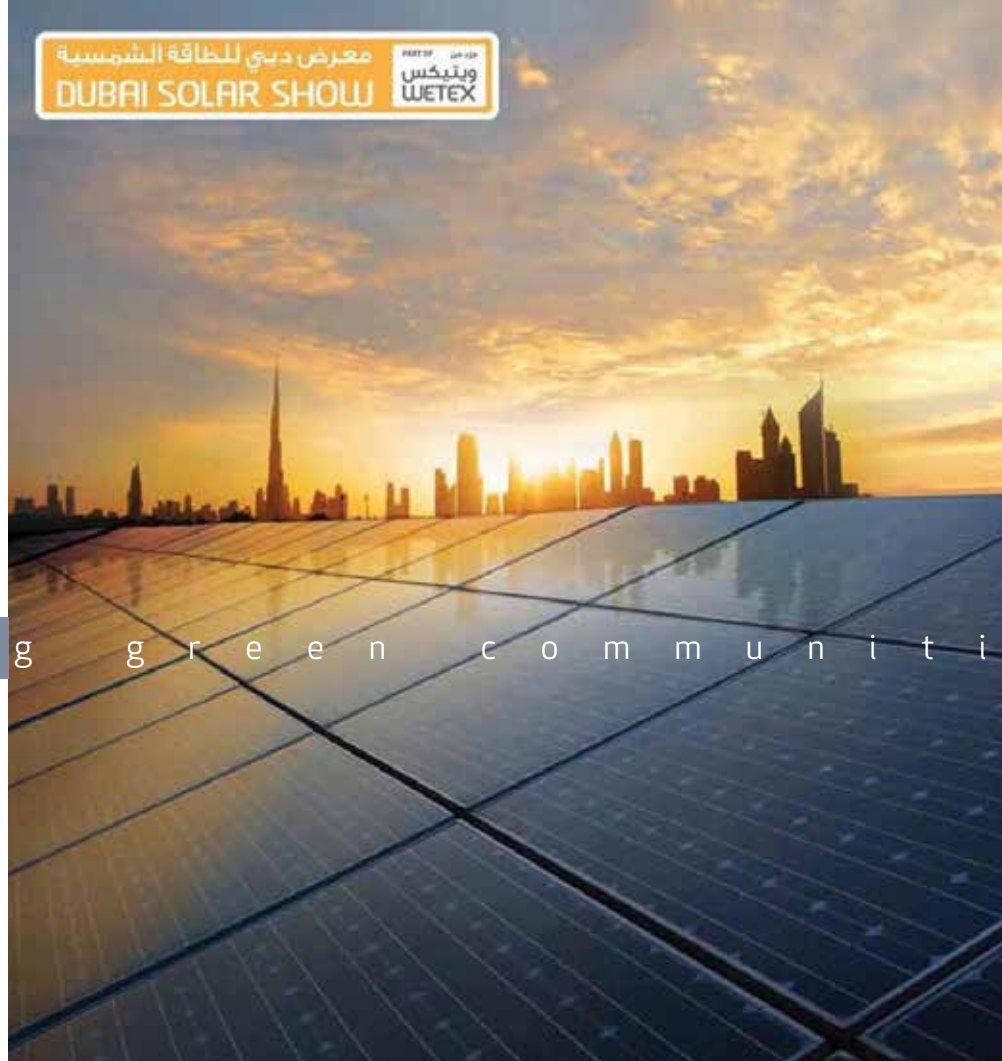
Nominations for 2017 Dubai Sustainable Tourism Awards to close in September

Hotels and desert camps in Dubai can enter the 2017 Dubai Sustainable Tourism Awards. Part of the Dubai Sustainable

Tourism initiative, the awards will recognise hotels and individuals who are adopting tangible measures to contribute to enhanced sustainability within the emirate's tourism sector.

Nominations are closing on 14th September, and winners will be announced at a ceremony in mid-November. Inaugurated this year, the Dubai Sustainable Tourism Awards feature 20 categories: 13 main awards targeted towards hospitality establishments, and seven special awards that recognise individuals who are true champions of sustainability.

WETEX 2017 and Dubai Solar Show to showcase crucial renewable and clean energy solutions



WETEX, the largest exhibition of its kind in the region, coincides with the second Dubai Solar Show, which highlights the latest innovations in the solar sector, and will be held from October 23-25.

Renewable and clean energy solutions and technologies are the top priorities of the 19th Water, Energy and Environment, Technology Exhibition (WETEX) 2017, organized by Dubai Electricity and Water Authority (DEWA) from 23 to 25 October. The exhibition, held under the directive of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and the patronage of HH Sheikh Hamdan bin Rashid Al Maktoum, Deputy Ruler of Dubai, Minister of Finance and Chairman of DEWA, to achieve

Dubai's vision of building a sustainable future for the Emirate.

WETEX, the largest exhibition of its kind in the region, coincides with the second Dubai Solar Show, which highlights the latest innovations in the solar sector, showcases the region's largest solar projects and provides a unique platform for building partnerships with all government and private sectors to develop innovative energy solutions.

The two exhibitions will highlight DEWA's Shams Dubai

initiative, in support of the Smart Dubai Initiative, launched by HH Sheikh Mohammed bin Rashid Al Maktoum, to make Dubai the world's smartest and most successful city by encouraging homeowners to install photovoltaic (PV) panels connected to DEWA's network on the roofs of their buildings to produce electricity. Such initiatives will increase reliance on clean energy and the buildings' share in the energy mix, as well as engage the public in reducing the carbon footprint in Dubai.

"WETEX 2017 and the second



THE SHAMS Dubai initiative has already installed photovoltaic panels on 433 buildings with a total capacity of 14.6 megawatts (MW).

Dubai Solar Show are ideal platforms to showcase the latest developments, solutions and technologies in the field of renewable and clean energy. Shams Dubai contributes to the establishment of a sustainable energy model that promotes Dubai's economic growth without harming the environment or its resources. It supports the long term national initiative launched by HH Sheikh Mohammed bin Rashid Al Maktoum, under the theme 'Green Economy for Sustainable Development', to build a green economy in the UAE, which contributes towards the

optimal implementation of the UAE Vision 2021," said HE Saeed Mohammed Al Tayer, MD & CEO of DEWA, and Founder and Chairman of WETEX.

"Solar energy is one of the most preferred energy sources in the Middle East. Due to the region's unique geographic location around the solar belt, it receives a large amount of solar radiation. The UAE, under the directives of our wise leadership, has been gearing up to say goodbye to the last drop of oil by investing in energy production projects by using different

solar technologies. DEWA is therefore keen to encourage research and development in this area to promote energy security and sustainability as the most important forms of safe, unlimited energy. It is a source that does not cause any carbon emissions, which makes it healthy and environmentally friendly. This form of energy reduces our dependence on traditional non-renewable sources of energy such as gas, oil, and coal," added Al Tayer.

"Shams Dubai is a key part of the Dubai Clean Energy 2050, which



aims to transform the Emirate into a global centre for clean energy and green economy and increase clean energy in Dubai to 75% by 2050," added Al Tayer.

'Green Economy for Sustainable Development' followed up by government ministries

The national initiative for a green economy launched by Vice President, Prime Minister and Ruler of Dubai, His Highness Sheikh Mohammed bin Rashid Al Maktoum was the crux of a coordination meeting held by the ministries of Infrastructure Development and Climate Change and Environment .

The national initiative for a green economy in the UAE

was launched by H.H. Sheikh Mohamed in 2012 under the slogan "Green Economy for Sustainable Development" to turn the UAE to be a global hub and successful model for green growth and sustainable development.

Engineer Hassan Goma' Al Mansouri, Undersecretary of the Ministry of Infrastructure Development, underscored the ministry's keenness to collaborate with its different strategic partners to achieve the objectives of the UAE National Agenda, including the Green Development Initiative in order to maintain the stature of the UAE as a sustainable environment for development and growth.

"The infrastructure development enterprises executed by the Ministry serve as a role model for development thanks to the support provided by the country's wise leadership to the entire development drive, including all its economic, social, environmental and energy platforms. Such projects have proved to be robust enablers for growth and for achieving the 2021 objectives," Al Mansouri added.

The ministry within this context seeks to follow internationally recognised practices and recruit best-in-class talents from different fields to ensure best possible application of sustainability standards in areas of infrastructure.



Gulf Cooperation Council, UN Environment partner on Environmental Action

A partnership agreement was signed on 22nd August, 2017, between UN Environment and the Gulf Cooperation Council (GCC) to address pressing environmental issues facing GCC countries.

The agreement was signed by Mr Erik Solheim, the Under Secretary-General of the United Nations and the head of UN Environment and on behalf of the Council, the Secretary General, H.E Dr Abdullatif Al-Zayani.

The agreement will support the implementation of four key priority projects agreed upon by the Ministers of Environment and endorsed by the GCC Ministerial Council. UN Environment, the GCC Secretariat and member countries

will develop a unified system for the sound management of chemicals, guidelines to safeguard coastal ecosystems from dredging activities, standards for collection and analysis of air quality data and assessment of the state of the environment and future outlook in the region.

GCC nations will contribute US \$1.34 million towards this work over a four-year period.

The initiative will strengthen the drive of the GCC in integrating environment into sustainable development to promote growth, prosperity and well-being of its citizens. It is also aligned with the global movement towards protecting oceans and fighting pollution.

The GCC region currently hosts UN Environment's West Asia Office in the Kingdom of Bahrain, and has supported its activities in the GCC region and the wider Arab region.

Erik Solheim, United Nations Under-Secretary-General and head of UN Environment, said the initiative was an example of how environmental protection and pollution control can be placed at the core of regional and transnational cooperation.

"Gulf Cooperation Council nations have long believed, rightly, that sustainable economic development can only take place when nature and natural resources are safeguarded for present and future generations," he said.

Cooperation

24 c r e a t i n g g r e e n c o m m u n i t i

UAE Space Agency discusses cooperation with climate change ministry



The meeting highlights role of space sciences and technologies in monitoring and combating the effects of climate change.

The UAE Space Agency has discussed means of joint cooperation with the Ministry of Climate Change and Environment during a meeting held last month between high-level Space Agency delegates and the Minister of Climate Change and Environment.

Discussions included the possibility of providing data on local and international environmental issues as well as exchanging knowledge and expertise in relevant fields in order to help combat the effects of climate change.

Dr. Thani bin Ahmed Al-Zeyoudi, Minister of Climate Change and Environment, met with Dr. Ahmad bin Abdulla Humaid Belhoul AlFalasi, Minister of State for Higher Education and Chairman of the UAE Space Agency along with Dr. Mohammed Al Ahabbi, Director-General of the UAE Space Agency and other high level delegates.

The two sides discussed collaboration in providing climate change and environmental solutions, with talks focusing on earth observation and remote sensing satellites. Dr.

Al Zeyoudi was briefed on the current earth monitoring satellite projects that are able to gather accurate scientific data on the UAE's environment, including greenhouse gasses and other issues related to climate change and sustainability.

The talks also outlined prospects for working with international bodies of which the Space Agency has membership.

The UAE Space Agency will facilitate access to global datasets covering a range of environmental issues, in order



e s f o r a b e t t e r t o m o r r o w

THE TWO sides discussed collaboration in providing climate change and environmental solutions, with talks focusing on earth observation and remote sensing satellites.

to inform and advance national efforts to combat the effects of climate change.

Dr. Al-Zeyoudi said, “The issue of climate change is one of the UAE’s highest priorities, due to its impact on our ecosystems and economy.

“The Ministry of Climate Change and Environment is cooperating with strategic partners in the public and private sectors to lay the foundations for tackling this issue nationally and internationally. We are taking the necessary measures in order for

us to be fully prepared to manage present and future risks.”

Dr. AlFalasi commented, “The UAE Space Agency is committed to upholding national policies on climate change, and maximising their efficacy wherever possible. Space technologies play a crucial role in these plans, as earth observation, remote sensing and monitoring are vital to understanding specific issues, developing targeted responses, and updating policies as necessary.”

Dr. Al Ahbabi said, “We have had

a highly productive meeting with the Minister of Climate Change and Environment, and look forward to our continued coordination wherever space technologies and environmental issues meet.

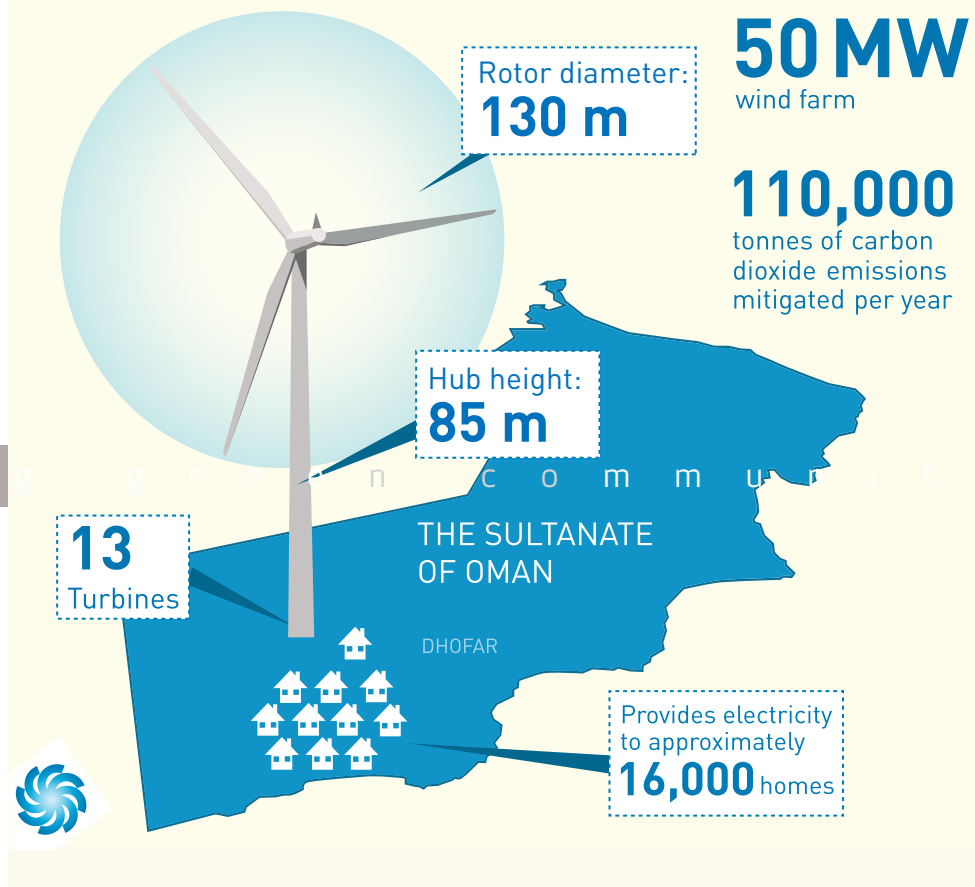
“This is an area in which the UAE Space Agency is already playing an active role, and earlier this year we welcomed the Environment Agency – Abu Dhabi to the Emirates Space Innovation Group. We believe the space sector will be key to ensure the UAE has a sustainable environment for generations to come,” he added.

DHOFAR WIND POWER PROJECT

Renewable Energy

26 creating a greener community

Oman prepares to build the first large-scale wind farm in the GCC region



Masdar to help build Oman wind farm powering 16,000 homes; GE and TSK of Spain also part of the consortium building wind farm.

THE 50 MW Dhofar Wind Power Project will electrify an estimated 16,000 homes and offset 110,000 tonnes of carbon dioxide emissions a year.

Abu Dhabi's renewable energy company, Masdar, has signed an Engineering, Procurement and Construction, EPC, contract with a global consortium comprising GE and Spain's TSK to build the Dhofar Wind Power Project, the first large-scale wind farm in Oman and the GCC.

The Dhofar Wind Power Project is a result of the joint development agreement that was established in 2014 between Masdar and the Rural Areas Electricity Company of Oman, RAECO. Funding for the wind farm is provided by the

Abu Dhabi Fund for Development, ADFD, a leading national entity supporting global socio-economic development initiatives.

The 50 MW wind farm takes its name from the southern Omani governorate bordering Yemen, the largest of the Sultanate's 11 governorates, and will electrify an estimated 16,000 homes and offset 110,000 tonnes of carbon dioxide emissions a year.

Commenting on the signing ceremony held on 19th August, 2017, Mohamed Jameel Al Ramahi, Chief Executive Officer

تحت رعاية صاحب السمو
السيد تيمور بن أسعد آل سعيد الموقر

حفل توقيع اتفاقية انشاء اول محطة لتوليد الكهرباء بأستخدام طاقة الرياح في سلطنة عمان



The Dhofar Wind Power Project will play an important role in supporting the diversification of Oman's energy mix.

of Masdar, said, "Oman has immense untapped potential in renewable energy, particularly in solar and wind. Masdar is proud to be supporting the historically close ties between the UAE and the Sultanate by providing our experience and expertise from delivering cutting-edge renewable energy solutions across the world.

The Dhofar Wind Power Project will play an important role in supporting the diversification of Oman's energy mix, while providing a reliable source of clean power to serve its growing population and economy."

Saleh Bin Nasser Al Rumhi, Chief Executive Officer of RAECO, said, "We are pleased to be supporting this project and the construction of the Dhofar Wind Power Project, which will be launched after signing of the project development agreement with Masdar."

"This project represents a fundamental shift in clean energy projects in the region and in the Sultanate in particular. It is the first project of its kind in the Gulf region and will offset 110,000 tonnes of carbon dioxide emissions," he added.

"The signing of this agreement signifies a major step in the development of the Dhofar Wind Power Project and is testimony to the strong relationship between the Sultanate of Oman and the United Arab Emirates.

"We look forward to the signing of other associated agreements related to the project this October," he said

Mohammed Saif Al Suwaidi, Director General of ADFD said, "We are proud to fund the Dhofar Wind Power Project, the first of its kind in Oman with its



innovative technology and which upon completion will contribute to the Sultanate's position as a clean energy leader in the region and will represent seven per cent of the total installed power generation capacity in the Dhofar governorate, including its capital city Salalah, a major port and free zone."

"Over the past four and a half decades, the Fund has been an instrumental and integral global development aid entity committed to supporting sustainable economic growth around the world," he added.

Al Suwaidi continued, "This 50 MW project will not only serve as a model of modern power generation but more importantly,

demonstrate the commercial viability of wind technology in the Sultanate. In addition, it will help facilitate greater knowledge transfer in renewable energy between the UAE and Oman.

Today, this multi-partner initiative is another strategic clean energy endeavor ADFD is pleased to support."

GE will lead the EPC consortium, and will provide the project's 13 wind turbines powered by the company's latest 3.8MW wind turbine generator solution.

Built upon the technology of its predecessors, the turbine represents the latest development in GE's wind turbine platform, increasing both annual

energy production and flexibility in operation.

TSK will support the consortium partners with the construction of the balance of plant.

For Masdar, this is yet another milestone in the field of wind energy after having developed the 117MW Tafila wind farm in Jordan, the Middle East's first utility-scale wind power project.

Masdar is also leading new developments in the offshore wind industry through its investment in Hywind Scotland, the world's first commercial-scale floating offshore wind farm and its latest project in the UK, in addition to the London Array and Dudgeon offshore wind farms.



Sharjah Municipality and Emirates Transport test electric hydrogen-running Toyota Mirai

In its continuous effort to support the UAE Vision 2021's environmental objectives, Al-Futtaim Motors, leader in sustainable mobility and exclusive distributor of Toyota in the UAE, introduced the zero-emission hydrogen-running Toyota Mirai to Sharjah Municipality and Emirates Transport, as part of its Government outreach program, aiming at building awareness about the benefits fuel cell technology.

The four-door Toyota Mirai is the world's first mass-produced hydrogen fuel cell electric vehicle, that generates electricity through an onboard Fuel Cell stack, using oxygen from the air with hydrogen stored in the tank to power the

car rather than using a battery. The Toyota Mirai which releases water instead of CO₂ as byproduct is the only zero emissions vehicle on the market that is capable of exceeding 500 km on a full tank with performance that competes with traditional internal combustion engines.

Both Sharjah Municipality and Emirates Transport delegations test-drove the car and were impressed by the vehicle's performance and environmental credentials, especially when experiencing the clear drinking water that came out of the vehicle, at the push of a button.

"This marks yet another successful achievement in our efforts to raise awareness

about poor air quality and our practical solutions to curb the issue. Our responsibility towards the environment is translated through a large-scale deployment of hybrid cars and the introduction of the zero-emission hydrogen technology," said Bertrand Thiebaut, Senior Managing Director of Al-Futtaim Motors and Vice President of Al-Futtaim Automotive Group.

"The fuel cell technology is the cleanest and most practical sustainable mobility solution, as it requires no electrical charging, can run up to 500 kms on a full tank of hydrogen which can be filled in the car in less than five minutes, imposing absolutely no changes on the driver's behaviour" he continued.

Renewable Energy

30 c r e a t i n g g r e e n c o m m u n i t i e s

DEWA first in region to receive International Renewable Energy Certificates

The move supports Dewa's commitment to the environment and its adherence to the vision of the wise leadership to increase the share of clean energy in the energy mix.

Dubai Electricity and Water Authority's (DEWA), 13MW first phase of the Mohammed bin Rashid Al Maktoum Solar Park has received the International Renewable Energy Certificates, I-REC issued in 2017, making it the first organisation in the Arabian Gulf to adopt the I-REC system.

The move supports DEWA's commitment to the environment and its adherence to the vision of the wise leadership to increase the share of clean energy in the energy mix. It also underlines DEWA's efforts to encourage the

use of clean energy and promote environmental sustainability and green economy.

The I-RECs, which were issued by the Dubai Carbon Centre of Excellence, Dubai Carbon, are equivalent to 25,000 megawatt hours of annual net electricity supplied to the grid from the 13MW power plant. I-REC system is a voluntary system for international trade in renewable-energy certificates.

DEWA is the first utility in the region to sell I-REC certificates. It has signed an agreement to sell

its 2017 certificates to Philips Lighting, through Norway's ECOHZ. The agreement affirms Philips' commitment to completely depend on renewable energy for its operations, by 2020.

"At DEWA, we work to achieve the vision of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to transform Dubai into a global hub for green economy and renewable energy. We also support the Dubai Clean Energy Strategy 2050, which was launched by His Highness.





e s f o r a b e t t e r f o r m o r r o w

I-REC is a voluntary system for international trade in renewable-energy certificates.

“The strategy maps out Dubai’s energy sector over the next three decades by establishing a sustainable model in energy conservation that supports economic growth without damaging the environment or natural resources. This will help Dubai to attain the lowest carbon footprint in the world by 2050,” said Saeed Mohammed Al Tayer, MD and CEO of DEWA.

“We are also working to achieve the Demand Side Management Strategy, which was launched by the Dubai Supreme Council of Energy, to reduce energy and

water demand by 30 percent by 2030,” he said.

“We are glad to cooperate with Philips Lighting, one of the leading organisations committed to instilling a culture of sustainability, to use the clean energy produced by DEWA from the first phase of the Mohammed bin Rashid Al Maktoum Solar Park. The park is the largest single-site solar project in the world with a planned capacity of 5,000MW by 2030. DEWA has consistently supported Dubai’s efforts to raise awareness on various environmental issues by

adopting and launching several relevant initiatives and projects. Our aim is to increase awareness on the importance of conserving and preserving our natural resources. Carbon reduction and impact mitigation form part of our environmental strategy,” concluded Al Tayer.



Research

32 c r e a t i n g g r e e n c o m m u n i t i

NYU research to help Arabian Gulf corals survive sea temperatures of 36 degrees or higher



[Corals in the Arabian Gulf survive extreme sea temperatures — 36 degrees Celsius or higher in the summer — and are more heat tolerant than any other corals on the planet.](#)

NYU Abu Dhabi researchers have announced that they may have found new insight into how coral reefs around the world will be able to cope with climate change as a team of researchers examined the genetics of a widespread coral to understand how corals survive extreme sea temperatures of 36 degrees Celsius or higher in the Arabian Gulf, making them more heat tolerant than any other corals on the planet.

“Rising sea temperatures are a primary cause of global coral reef bleaching, when water is

too warm, corals expel the algae living in their tissues, causing the coral to turn white (known as coral bleaching). Major coral bleaching events have occurred around the world, including significant events in Australia on the Great Barrier Reef, and experts expect to see continued damage in the coming years,” explained a New energy vehicleser.

The study, which was published in the scientific journal PLOS One, sought answers to whether these corals have genetically adapted to these extreme conditions or have physiologically acclimated to

the heat. To this end, the genetic structure of the coral *Platygyra daedalea* and its symbiotic algae in the Arabian Gulf and the nearby Gulf of Oman were investigated.

“By looking at both corals and algae, we can get a better idea of whether one or both are involved in Gulf coral thermal tolerance,” said Edward Smith, a postdoctoral associate researcher at NYU Abu Dhabi.

DNA analysis was performed on corals collected from reefs in the Arabian Gulf near Abu Dhabi and from sites in the slightly cooler Gulf of Oman around Fujairah and



ARABIAN GULF reefs are the most diverse ecosystems in the region and support major economic areas such as fisheries.

Muscat. This analysis found some key differences, revealing that the Arabian Gulf corals and their algae are genetically distinct from their counterparts in the Gulf of Oman.

According to Smith, limited gene flow exchange between regions indicates that Arabian Gulf corals have adapted to cope with their extreme conditions. "This is interesting because the results suggest that both the coral and their algae together contribute to the superior thermal tolerance traits of Arabian Gulf corals."

"Genetically adapted populations

of corals and their symbionts in the Arabian Gulf are an important scientific resource", he added. "This study will help us understand the mechanisms involved in coral thermal adaptation, and provide new insight into whether corals elsewhere in the world will be able to cope with climate change."

International report confirms 2016 was warmest year on record for the globe

The 27th annual State of the Climate report has confirmed that 2016 topped 2015 as the warmest year in 137 years of record keeping. The US report

found that most indicators of climate change continued to follow trends of a warming world, and several, including land and ocean temperatures, sea level and greenhouse gas concentrations in the atmosphere broke records set just one year prior.

This annual check-up for the planet is based on contributions from more than 450 scientists from nearly 60 countries. The report noted that greenhouse gases, global surface temperature, average sea surface temperature and global sea level were the highest on record.

Launch

34 creating green community

New Energy Vehicles Club launched under Clean Energy Business Council



The club's role is to function as an electric vehicle and clean energy industry representative, connecting private sector players to relevant stakeholders in order to support the development of the electric vehicle market.

To support the transition of the automotive industry towards green mobility and the recent initiatives taking places in the UAE, the New Energy Vehicles Club has been created under the umbrella of the Clean Energy Business Council, CEBC, at the initiative of ENGIE, an energy company, charging station manufacturer and board member of the CEBC.

The creation of the club was announced on the occasion of a webinar on green mobility welcoming 400 participants including regional and global

stakeholders from the public and private sectors.

The club's role is to function as an electric vehicle and clean energy industry representative, connecting private sector players to relevant stakeholders in order to support the development of the electric vehicle market.

Founding members of the club include key international and local companies involved in the electric vehicle ecosystem. Work will start in the UAE with a goal to expand activities across the MENA region.

"With growing demands on transportation across the MENA region, electric vehicles are arguably the future of sustainable mobility, said Stephane le Gentil, CEO of the Clean Energy Business Council.

"Leading industry analysts believe that by 2025, EVs with ranges from 200-500km on one charge will have the same up-front costs as combustion engine vehicles. This marks a game changing shift in the global economics of oil and presents a significant opportunity for the electricity and renewable energy industries."



es for a better tomorrow

PASSENGER VEHICLE sales in the MENA region are predicted to reach 3.37 million units in 2020, with the majority of cars being sold in the GCC region.

“With an approach structured to raise awareness within regional government entities as well as among the general public, the New Energy Vehicles Club aims to facilitate development of local electric vehicle markets by bringing both the public sector and private entities on board to change the face of mobility in the MENA region. This change will bring about immense opportunities for the energy market, but it will also come with urban infrastructure challenges that need to be addressed by the entire supply chain. That is much easier to accomplish with a

unified approach,” he continued.

Globally, the 2 million milestone sales figure of electric passenger and light weight utility vehicles was passed in December 2016. In contrast, passenger vehicle sales in the MENA region are predicted to reach 3.37 million units in 2020, with the majority of cars being sold in the GCC region.

Marwan Haidamous, Managing Director at Renault Middle East, a founding member of the New Energy Vehicles Club, said, “Every year there are more customers for electric cars and Renault is

making a major contribution to this with its constant innovation and dedication to developing infrastructure and ecosystem. As European leader for electric cars and pioneer in the Middle East region with a full range of pure electric vehicles, we want to make EVs accessible to everyone.”

Throughout the remainder of 2017 and beyond, The New Energy Vehicles Club will put in place a working program to support the growth of the EV market and raise awareness about the electric vehicle industry, as well as interacting with key stakeholders.

Conservation

36 creating greener communities

Abu Dhabi releases 54 Scimitar Horned Oryx into the wild in Chad



This latest release in the Ouadi Rime Ouadi Achim game reserve is the largest reintroduction since the launch of the initiative in 2014 and brings the number of animals in the wild up to 89.

As part of its project to reintroduce the Scimitar Horned Oryx in to its natural habitat, the Environment Agency – Abu Dhabi (EAD) have just released a further 54 Scimitar horned Oryx into the wild in Chad.

This latest release is a significant milestone for progress of the initiative, which seeks to reintroduce this extinct-in-the-wild species. This, the largest reintroduction yet brings the number of animals in the wild to 89.

The reintroduction efforts of the last year have seen the population

grow with 16 calves now recorded in the wild.

EAD along with their project partners, the Chadian Ministry of Wildlife and Fisheries and the Sahara Conservation Fund aims to achieve a wild free-ranging, self-sustaining population of 500 animals in the Ouadi Rime Ouadi Achim game reserve in Chad.

It is believed that the last Scimitar horned Oryx disappeared from Chad in the late 1980's and the species was officially declared "Extinct in the Wild" globally by the International Union for the

Conservation of Nature (IUCN) in 2000.

The animals selected for the reintroduction come from the 3,800-strong "world herd" that EAD has at its breeding facility in Delajja, Abu Dhabi, and the genetic diversity of the blood-stock has been increased with the addition of animals donated from a number of zoos and private collectors across the globe.

The UAE herd is the largest single population of the animals in the world. Many of the animals that make up the world herd were



IT IS BELIEVED that the last Scimitar disappeared from Chad in the late 1980s before the species was officially declared "extinct in the wild" globally in 2000.

generously donated to EAD from the collection of the late HH Sheikh Zayed bin Sultan Al Nahyan. They are carefully tested and prepared in Abu Dhabi for shipment to the pre-release facility, within the 78,000 square-kilometre protected area where they are released in Chad.

After release, the wild herds are protected by wildlife rangers of the Government of Chad Ministry of Environment and Fisheries.

EAD is working closely with the Smithsonian Conservation Biology Institute (SCBI) and Zoological

Society of London to carefully monitor the daily movements of the animals in the wild with the aid of satellite collars.

Commenting on the latest progress of the ground-breaking initiative, HE Razan Khalifa Al Mubarak, EAD's Secretary General stated; "We have a long way to go before achieving our target of 500 animals in the wild. But our progress thus far is already exceeding expectations. We have now had animals in the wild for over a year, they are showing every sign of not only adapting to, but thriving in their "new" environment."

She added, "We are accumulating invaluable scientific information that will help not only ensure the success of this project, but inform and inspire other reintroduction projects across the globe. The ambition of this project is immense; it is the world's greatest large mammal reintroduction effort."

"The project's success thus far is the result of the wonderful partnership and commitment from the Abu Dhabi Government and the Government of Chad. We also have numerous members of the world's conservation community to thank



for their continued support of this initiative,” Al Mubarak noted.

The Scimitar-horned Oryx

- Native to Central and Northern Africa, the historic range of the animal was right across the Sahel region of Africa, and they were known to migrate north into the Sahara during the wet season, when grass would grow in the desert.
- It is a sociable animal that travels in herds of between two and 40 individuals, led by a dominant bull.
- In 1936, a single herd of 10,000 Scimitar-horned oryx was seen in Chad, where by the 1970s was home to more than 95 per cent of its world population.

- Females give birth after 8 to 9 months to a single calf weighing about 10kg. The calf has a yellow coat, so predators cannot spot them.
- The coats change to the adult colour at between three to 12 months old, and this white coat helps to reflect the heat of the sun.
- Adult males weigh 140 to 210kg and females 91 to 140kg.
- The name Scimitar refers to its sword-shaped horns.





DEWA, ADWEA sign MoU for strategic water interconnection between Dubai and Abu Dhabi

Dubai Electricity and Water Authority, DEWA, and Abu Dhabi Water and Electricity Authority, ADWEA, have signed a Memorandum of Understanding, MoU, for strategic water connections and the exchange of potable water in case of emergencies, or other purposes, between Dubai and Abu Dhabi.

This is part of the efforts of both parties to ensure that water security is sustainable and to establish strategic water reserves in the UAE. The MoU was signed by Saeed Mohammed Al Tayer, MD & CEO of DEWA, and Dr. Saif Saleh Al Seiri, Director-General of ADWEA.

“This agreement supports our joint efforts to promote water

security in the UAE, and achieve the objectives of the National Agenda of the UAE Vision 2021 to ensure a sustainable environment and preserve water resources in the UAE. It also supports our strategy to enhance the efficiency of the water network by working together to achieve the strategic objectives of the Federal Government of the UAE and the recommendations of the UAE Water Security Strategy 2036. It strengthens the cooperation between ADWEA and DEWA as this strategic National project will contribute to improving the reliability of water systems in Dubai and Abu Dhabi,” said Al Tayer.

Al Tayer noted that this strategic initiative began in 2007 when

both entities coordinated to study the possible options for water interconnection between Abu Dhabi and Dubai. This cooperation will help prevent crises and any water shortages. The two organisations will work to secure the needs for their ambitious development plans by increasing the efficiency and operational capacity of their water networks, to meet growing demand for their services. This, in turn, will contribute to the sustainable development of the UAE.

According to the MoU, DEWA and ADWEA will conduct a feasibility study for water interconnection between the two networks, including all available options and final recommendations regarding the best technical options.

Renewable Energy

40 c r e a t i n g g r e e n c o m m u n i t i e s

World's first commercial-scale floating offshore wind farm nears completion



[Final turbine in Masdar and Statoil joint venture arrives in position off Scottish coast demonstrating the next stage in the evolution of the offshore wind industry.](#)

The fifth and final wind turbine for the Hywind Scotland commercial-scale floating offshore wind farm, a joint project between Masdar and Statoil, has arrived at its final destination, Buchan Deep, 25km east of Peterhead in Scotland.

Earlier this summer, all five turbines were successfully assembled outside Stord, Norway and they have now completed their journey to Scottish waters. Each turbine took four days to be towed across the North Sea where, on arrival, work was immediately started to install anchor lines

and perform hook-up operations, taking two to three days per turbine. Final installation is scheduled to be completed in the coming weeks.

Hywind Scotland, a GBP210 million project unveiled in late 2015, is a partnership between Masdar, Abu Dhabi's renewable energy company and Norway-based international energy company, Statoil. Masdar announced its acquisition of a 25 per cent stake in the project during Abu Dhabi Sustainability Week in January. Statoil, the project's lead operator, owns the remaining 75 per cent.

Commenting on this milestone, Bader Al Lamki, Executive Director, Clean Energy at Masdar said: "Hywind Scotland is the world's first project to accommodate commercial-scale wind turbines on a floating structure. It demonstrates the enormous potential for delivering offshore wind energy in waters up to 1km deep, and represents the next stage in the evolution of the offshore wind industry.

"Masdar is proud to be among the pioneers of renewable energy around the world. Through this important partnership with



es for a better tomorrow

The 30 MW wind farm will occupy 4km² of space in an area of the North Sea which records average wind speeds of 10 metres per second.

Statoil, we are combining our vast industry knowledge and expertise and are well placed to advance the adoption this innovative technology in appropriate locations across our key markets.”

The 30 MW wind farm will occupy 4km² of space in an area of the North Sea which records average wind speeds of 10 metres per second. Upon completion later this year, the project will provide around 22,000 UK homes with renewable electricity.

This is the second offshore windfarm project partnership

between Masdar and Statoil after the Dudgeon offshore windfarm in East Anglia. Dudgeon, Hywind Scotland and the 630 MW London Array – currently the world’s largest offshore wind farm in operation – will bring Masdar’s gross renewable energy generating capacity in the United Kingdom to more than 1,000 MW.

Bahrain to host 1st Energy Investment Forum

The Kingdom of Bahrain has announced that its first Energy Investment Forum is set to be held in September alongside the STEEB 2017 exhibition.

Bahrain’s Minister of Electricity and Water Affairs, Dr. Abdulhussain bin Ali Mirza, said that the forum will focus on drawing a comparison between the latest developments in solar energy, renewable energy and technology and other sources of energy.

Energy experts from investment institutions interested in financing energy technology companies, research institutions and universities will attend, as well as representatives from the United Nations, diplomatic missions and GCC and Arab chambers of commerce and Industry.

Exhibition

42 c r e a t i n g g r e e n c o m m u n i t i e s

Leisure Show Dubai
set to explore
greener fit-tech



Anticipated product launches include the latest in energy-converting exercise technology: ellipticals, cycles, and treadmills that transform movement into wattage – providing enough of it to power any fitness fan’s home.

How would you feel if you could power your home by foot?

As harebrained and exhausting as that may sound, it could very well soon be your far-from-arduous reality.

The Leisure Show, the UAE’s leading annual celebration of all things sports and fitness, has gathered its greenest pool of exhibitors ever for its 2017 event, taking place in Dubai this month.

One of the most eagerly anticipated product launches is

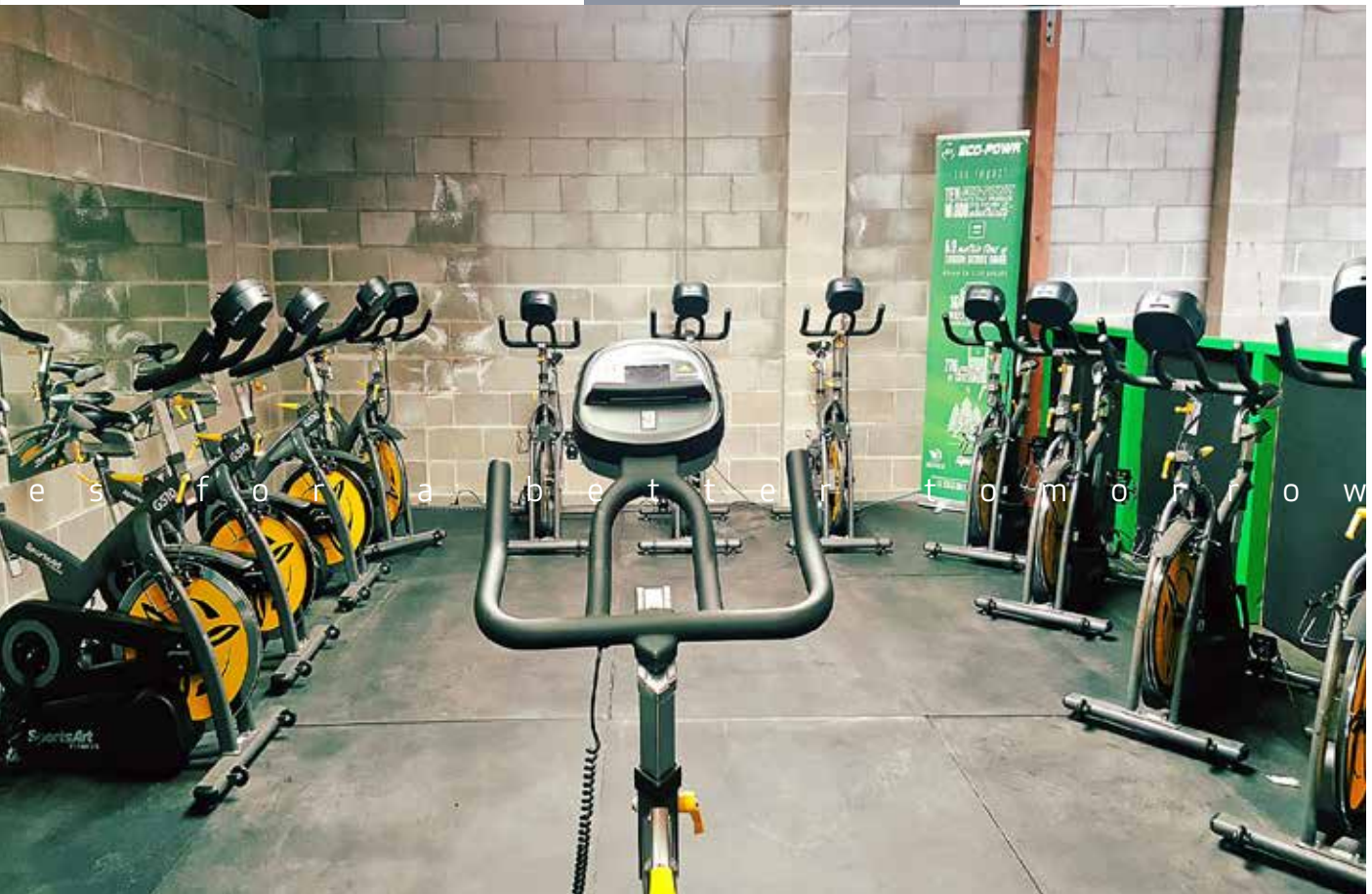
the latest in energy-converting exercise technology: ellipticals, cycles, and treadmills that transform movement into wattage – providing enough of it to power any fitness fan’s home.

In what is a world first, the SportsArt ECO-POWR™ range harnesses the energy created by a workout and sends it directly back to the grid, offsetting the electricity initially used to power the machine. The ECO-POWR™ line is already being billed as one of the biggest energy conserving innovations since solar panels, and leads the way in the growing

market of eco-friendly and digitally revolutionized fitness equipment set for exhibiting at September’s Leisure Show.

The hugely popular yearly event will also introduce the Middle East’s leisure market to similar eco-ranges, including high-end machines that operate purely off water and the latest in virtual reality’s growing influence on the industry.

Sarkis Kahwajian, Event Manager of The Leisure Show Dubai, said: “What we’re experiencing is a major shift in the operating



THE LEISURE SHOW is taking place at the Dubai World Trade Centre from September 18 to 20 as part of Dubai International Hospitality Week.

capabilities of the traditional gym and fitness products. Eco-friendliness is now a prime concern for both manufacturers and users, meaning that even the finest gym and sports equipment now aims to offer as little an environmental impact as possible, while providing the maximum physical challenge.

“On top of that, virtual reality is only getting bigger too, generating endless creative possibilities for taking workouts, for example, to a whole new level, while reducing the need for electricity draining equipment.

Both these leading trends will be available to experience across our show floor,” he said.

Giovanni Berselli, EMEA Sales Director - Hotels Channel, for SportsArt said: “We are the only company whose products put watts back into the power grid, converting up to 74% of the user’s energy while cleaning it up, and converting it into utility-grade electricity.

Our ECO-POWR™ line is the culmination of these aspirations, allowing facilities to reduce their carbon footprint, become more

sustainable, offset their power costs, and attract more members who are interested in green companies that do all of the above.”

A recent survey conducted by the international brand focused on consumer preferences in eco-friendly gym equipment. It found that 62.4% prefer to work out at a gym if it uses environmentally friendly equipment, with 47% of business travelers admitting they prioritize green hotels when away on work. It also revealed that more than 90% of millennials believe it is important that products they use have eco-benefits.

Partnership

44 c r e a t i n g g r e e n c o m m u n i t i e s

Committed to protecting UAE's natural heritage



[Gulf Capital signs strategic partnership with Emirates Wildlife Society in association with WWF to support environmental education and conservation in the UAE.](#)

Gulf Capital, one of the largest and most active alternative investment firms in the Middle East, announced on 6th August, 2017, a long-term platinum corporate membership with Emirates Wildlife Society in association with WWF (EWS-WWF), a leading local environmental NGO which is committed to protecting the UAE's natural heritage - its climate, seas, land and the biodiversity that lives within it.

As a Platinum member, Gulf Capital will support EWS-WWF's initiatives in the UAE,

including marine and terrestrial conservation, environmental education, wildlife trade, and climate change and energy.

EWS-WWF was established in 2001 under the patronage of HH Sheikh Hamdan bin Zayed Al Nahyan out of a need to protect biodiversity in key sites across the emirates, including species and ecosystems of concern in the UAE, and contribute to policy and institutional framework to address environmental issues. Earlier this year, in line with the Year of Giving, the Mohammed Bin Rashid Global Centre

for Endowment Consultancy (MBRGCEC) and EWS-WWF launched a first-of-its-kind initiative to support environment through endowment and Gulf Capital have met the criteria to be eligible for the Dubai Endowment Sign.

The environment endowment initiative aims at strengthening public awareness of the importance of environment programmes, and encouraging companies to initiate their corporate social responsibility to support initiatives, studies, and research in the field



ess for a better tomorrow

THE DUBAI Endowment Sign motivates government and private establishments to allocate a portion of their assets to social development projects.

of environment. Positive participation of the private sector and social figures are expected so as to translate the vision of UAE President HH Sheikh Khalifa bin Zayed Al Nahyan which marks 2017 as The Year of Giving in the UAE.

Dr Karim El Solh, Chief Executive officer of Gulf Capital, said: “We are proud to embark on this strategic partnership with EWS-WWF in the ‘Year of Giving’ in the UAE, to support the country’s vision 2030 with regards to sustainability and the environment. This partnership is in

line with our Social Responsibility strategy that is built on the pillars of youth, education and entrepreneurship and highlights our commitment to sustainability through education and knowledge transfer.

“The integration of environmental education, best practices and ecological support in our day-to-day work complements our on-going efforts in this regard.”

Laila Mostafa Abdullatif, Director General, EWS-WWF, said: “EWS-WWF has been working with organisations across the UAE to

inspire, support and further the understanding of environmental issues. Gulf Capital’s contribution facilitates our many important environmental conservation programmes across the UAE.

“These series of projects address the UAE’s ecological footprint and promote conservation. This collaboration plays a part in EWS-WWF’s long-term efforts in creating a more sustainable future for our nation. We are looking forward to working in partnership with like-minded companies such as Gulf Capital to make a positive difference.”

Nuclear Energy

46 c r e a t i n g g r e e n c o m m u n i t i

Major components successfully installed at Unit 4 of Barakah Nuclear Energy Plant



Commemoration ceremony held to celebrate milestone event as fourth reactor vessel and steam generators are installed.

In line with the 'Abu Dhabi Plan', the Emirates Nuclear Energy Corporation (ENEC) has made significant progress on the construction of the Barakah Nuclear Energy Plant, with the installation of the steam generators for Unit 4, the final unit at the plant. This milestone event coincides with the successful installation of Unit 4's Reactor Vessel (RV).

H.E. Jassim Mohammed Buatabh Al Zaabi, Chairman of the Executive Committee Office and member of the Executive Council, led the delegation of the General

Secretariat of the Executive Council (GSEC), which attended the commemoration ceremony in Barakah, the world's largest nuclear energy construction site. The delegation was hosted by His Excellency Chairman of the Board of Directors of ENEC, Khaldoon Al Mubarak, ENEC CEO, Eng. Mohamed Al Hammadi, Korea Electric Power Corporation (KEPCO) Chairman of the Board of Directors Ahn Choong Yong, as well as ENEC, Nawah and Barakah One Company executives.

The delegation from GSEC included H.E. Eng. Awaidha

Murshed Al Marar, Chairman of the Department of Municipal Affairs and Transport and a member of the Executive Council, H.E. Saif Mohamed Al Hajeri, Chairman of the Department of Economic Development and a member of the Executive Council, and representatives of strategic stakeholders.

During the event, the delegation took part in a signing ceremony, as well as tour of the site, which highlighted ENEC's focus on quality and safety during construction and nuclear operational readiness activities,



THE BARAKAH Nuclear Energy Plant is a quality-driven site and one of the most efficient nuclear energy construction projects globally.

H.E. Jassim Mohammed Buatbah Al Zaabi, H.E. Khaldoon Al Mubarak, H.E. Eng. Awaidha Murshed Al Marar, H.E. Saif Mohamed Al Hajeri, ENEC CEO, Eng. Mohamed Al Hammadi, KEPCO Chairman of the Board of Directors Ahn Choong Yong, and ENEC, Nawah and Barakah One Company executives, in front of the Unit 4 steam generator during the ceremony.

in preparation for the units to start generating electricity.

His Excellency Khaldoon Al Mubarak, Chairman of the Emirates Nuclear Energy Corporation's Board of Directors, said: "The UAE's Peaceful Nuclear Energy Program supports the Abu Dhabi Plan by contributing to a diversified energy mix and sustainable, long term economic growth. The installation of the final reactor vessel and steam generators, as per the 2009 Prime Contract, is a great achievement."

"I am proud of the unwavering

commitment and professionalism demonstrated by the entire team. From our Emirati engineers to our international experts and Korean partners, the focus has remained on quality, safety and efficiency throughout this development process," Al Mubarak added.

"I am proud to be to be here in Barakah today to witness this extraordinary milestone in the UAE Peaceful Nuclear Energy Program," said H.E. Al Zaabi. "Nuclear energy plays a strategic role for the future of our Nation, enabling economic and industrial growth, as well as careers in

nuclear energy for Emirati youth. It will also support in securing the energy sector by diversifying energy sources to meet the rapid growth of the national economy."

The delegation closed the visit to Barakah with a signing ceremony inside Unit 4, where they observed the installation of the Steam Generators. Guests signed a specially-prepared panel to commemorate this important milestone.

ENEC's CEO Eng. Mohamed Al Hammadi said: "These achievements are showcasing



H.E. Jassim Mohammed Buatabh Al Zaabi, H.E. Khaldoon Al Mubarak, H.E. Eng. Awaidha Murshed Al Marar, H.E. Saif Mohamed Al Hajeri, ENEC CEO, Eng. Mohamed Al Hammadi, KEPCO Chairman of the Board of Directors Ahn Choong Yong, ENEC DCEO Eng. Ahmed Al Rumaithi, in front of the unit 4 steam generator

our commitment to delivering a world-class nuclear energy program, from construction through to operations.”

“The successful installation of the final Reactor Vessel and Steam Generators for the Barakah Plant is testament to the dedication of our teams towards the previous milestones and for the upcoming plans.” Al Hammadi added.

Steam Generators, which are similar in length to a tennis court, play a key role in the conversion of the energy generated by the nuclear fission reaction in the RV into the electricity, which will eventually power homes and businesses throughout the UAE. The heat generated in the

RV is transferred to the steam generator and turns water into steam, which is then used to spin a turbine and generate electricity.

The installation of the RV is a critical step in the continued progress and development of the UAE Peaceful Nuclear Energy Program. The RV is one of the most important and largest components in a nuclear energy plant.

Weighing over 500 tonnes and measuring almost 15 metres in height, the RV will eventually contain the controlled nuclear reaction that will generate the clean, efficient and reliable electricity that will feed into the UAE grid. It is also one of the many defence-in-depth barriers

that ensure the safety of nuclear energy plants.

The project at Barakah is progressing steadily; Unit 4 is now more than 52 percent complete. Unit 1 is more than 96 percent, while Unit 2 is more than 85 percent, and Unit 3 is more than 75 percent. Overall, construction of the four Units is now more than 82 percent complete.

All four units will deliver clean, efficient and reliable nuclear energy to the UAE grid, pending regulatory reviews and licensing. When the four reactors are completed, the Barakah Nuclear Energy Plant will save up to 21 million tons of carbon emissions each year.

creating green community



f o r a b e t t e r t o m o r r o w

Ministry of Climate Change to supply 9,500 tons of fertilizer to farmers

The Ministry of Climate Change and Environment, MOCCA, has commenced its yearly drive to provide financial and technical assistance to farmers in the UAE as part of its priority to encourage local farmers to switch to innovative, eco-friendly farming patterns and promote local agricultural production.

Every year, the ministry conducts a survey to identify the needs of farmers and understand the essential requirements to be supplied during the next cycle. The study helps the ministry ascertain the facilities necessary to guarantee food safety while ensuring the protection of natural resources. Speaking on the occasion, Sultan Alwan, Assistant

Under-Secretary of the Regions Sector, said, "The ministry is committed to encouraging the adoption of modern agricultural practices, such as organic agriculture, and keen to eliminate the challenges farmers face in their work."

He also noted that as a result of a series of meetings with farmers in different regions during 2016 to study their actual requirements, MOCCA will supply over 52 types of materials this year, indicating an increase of 40 percent on last year.

The distribution of agricultural materials and supplies for 2017 will begin during the second week of August. The materials include 9,500 tons of fertilizer, such as manure, hydroponic and organic

fertilizer, as well as integrated pest management supplies, such as low-impact insecticides and fungicides that are environmentally safe and suitable for aquatic agriculture, protected and organic farming.

In addition, the ministry will distribute up to five million seeds of the most common crops suitable for both protected and organic farming, such as tomatoes, cherry tomatoes, cucumbers and peppers. Materials for the construction of greenhouses, including polycarbonate sheets, thermal insulation and insect screens, hydroponic grow pads and cooling pads, and equipment such as irrigation pipes and pumps will also be available.

Conservation

50 c r e a t i n g g r e e n c o m m u n i t i

Sharjah highlights importance of protecting endangered species



[The Environment and Protected Areas Authority in Sharjah treats an injured bird to help it fly over the Kalba Mountains.](#)

Hana Saif Al Suwaidi, Chairperson of the Environment and Protected Areas Authority, EPAA, in Sharjah, has underlined the importance of protecting endangered birds and animals to maintain biodiversity and nature, in line with the vision of H.H. Dr. Sheikh Sultan bin Mohammed Al Qasimi, Supreme Council Member and Ruler of Sharjah, and the desire of the Emirate of Sharjah to create proper conditions to breed various species, reflecting the richness of the environment and nature in the United Arab Emirates.

Al Suwaidi made her comments as experts from the authority's branch in the Eastern Region provided treatment to an injured bird, a Common Kestrel, to help it fly over the Kalba Mountains.

Awatif Al Naqbi, EPAA Eastern Region Branch Manager, stated that the injured bird, which was found in a residential area in Kalba City, was in an extremely poor condition, unable to fly or move before it was treated by veterinarians from the authority.

"The bird has been treated and the concerned teams transferred

it to the Bird of Prey Centre, to spend adequate time until its full recovery. The bird was released to fly again over the Kalba Mountains.

This bird is usually found in rocky or stone mountains. It is a partial migrant bird that visits the UAE in winter in considerable numbers, with some of them breeding here. Breeding pairs of Common Kestrels were discovered in mountains, some rocky islands, and, very rarely, in buildings.

These birds can be found in many environments, ranging from



e s f o r a b e t t e r t o m o r r o w

THE COMMON KESTREL is a partial migrant bird that visits the UAE in winter in considerable numbers.

mountains to deserts, agricultural fields, parks, gardens and cities,” he explained.

This type of falcon is very widespread in Europe, Asia and Africa. The northern species of Common Kestrel are migrant birds that spend winter in areas ranging from the Arabian Peninsula to Southeast Asia. Adult male Common Kestrels can be distinguished from other kestrels by their reddish upper parts, the absence of a broad grey-blue line, pale heads and many black spots on the upper parts of their feathers. Female kestrels are

almost identical.

From a short distance, the black or sometimes ivory white claws of female kestrels can be seen. Kestrels do not live in flocks, rather, they live alone or in breeding pairs.

Tadweer organises clean-up campaign to preserve sea and marine wealth

The Waste Management Centre - Abu Dhabi, known as Tadweer, has organised a clean-up and awareness campaign at the fishermen’s port in Abu Dhabi, targeting boat owners and

residents, in order to preserve the sea and marine wealth.

Faris Al Mazrouei, Acting Project Manager of Collection and Transport at the organisation, stressed the importance of preserving the overall appearance of the marine environment and cooperating to enhance general cleanliness level in line with the Emirate of Abu Dhabi Vision and Plan. He said that the campaign comes as part of a series of awareness projects by Tadweer, complementing its efforts towards comprehensive waste management.

Study

52 creating green communities

New study on global warming highlights urgent need for sustained, global action to fight climate change



[George Berbari, CEO of UAE engineering firm DC PRO and author of 'The Energy Budget' addresses research that suggests parts of South Asia will be uninhabitable in less than 100 years.](#)

Climate Change is real. Global warming is real and is happening and the effects are going to be catastrophic.

A new research suggests that parts of South Asia, which is home to one fifth of the world's population, will, in less than 100 years, become too hot for human habitation without adequate protection from deadly heatwaves.

This just emphasises the critical crossroads the world now finds itself at if we are to do something to reverse the direction the

planet is heading to.

In my recently published book 'The Energy Budget', I referred to global warming as the "biggest failure of the human race".

Collectively we have, over the course of the past century, consumed and wasted precious energy without a thought for what our actions mean for the future.

The latest research, published on Science Advances, points to rising temperatures and humidity in densely populated agricultural areas of the Ganges and Indus

river basins soaring to levels that far exceed human survivability levels. We've already seen the signs; in 2015 a deadly heat wave that gripped large parts of India and Pakistan claimed more than 3,500 lives.

Studies such as this one are vitally important to keep the issue in the spotlight and highlight the need for urgent action. During the course of my 31 years in the engineering industry I have carried out extensive work and pioneered many new technologies.

My goal has always been to



e s f o r a b e t t e r t o m o r r o w

GEORGE BERBARI is a recognised regional leader in sustainability and author of 'The Energy Budget'.

improve efficiency in energy use and protect our precious environment, but my efforts and the collective efforts of all environmentalists worldwide are still not sufficient to stop global warming.

The Paris Agreement on climate change, an agreement of 195 nations signed in December 2015 that binds individual countries to a collective global goal of combatting global warming, is a start but we must do more.

The commitment of the countries to cut CO2 emissions by 2030 is

a positive step, yet it still gives nations such as China, the world's biggest emitter of CO2 emissions, the capability to do what it wants for the next 13 years.

That being said, renewable energy is picking up worldwide. China is, publicly at least, being seen to be acting as the world's biggest investor in green technology solutions. And despite US President Donald Trump's decision to withdraw his country from the agreement, the number of Americans employed in renewable-energy and jobs centred around sustainability is

increasing year-on-year.

Steps are being taken as the world awakens to the issue of climate change. However, the real problem the world must face up to if it wants a greener earth is that energy remains decidedly cheap.

Energy is abundant and valuable but it should not be provided at a low cost because the traditional fossil fuel methods of creating and burning energy have an undisputed negative impact on our planet.

Humans have been entrusted with



the responsibility of looking after this beautiful planet, but it shouldn't be left to politicians to decide the best course of action.

The complexity of energy creation and usage should prevent anyone other than highly-qualified experts in the domain to make decisions on the subject.

In 'The Energy Budget' I propose a structured formal plan whereby every country, city, town and factory will abide to a specific energy budget.

That budget would not be set by politicians but by independently-elected or appointed energy governors - similar to a Central Bank Governor - which is then cascaded to every home,

commercial building, factory and transportation body within a country's borders.

With this framework there should be a system to reward efficiency by providing lower rates for efficient users and producers; inefficiency would be penalised with higher rates.

Unless taxed, this system wouldn't be a revenue generator for a country's economy. What it would do is benefit the whole population as penalties would be used as a self-financing mechanism by each country or city to fund district energy in existing buildings and factories, as well as new research into the use of renewables, hydrogen and bio fuels.





Masdar, BMS sign agreement to pursue joint sustainability projects

Masdar, Abu Dhabi's renewable energy company, and MDC Business Management Services, BMS, have signed an MoU to explore opportunities to deliver projects that improve the energy and water efficiency of buildings and facilities in the UAE.

Masdar's specialised sustainability capabilities will be combined with the facilities management expertise of BMS to help companies make their properties more efficient, thereby reducing operating costs.

This combined offering will also support key elements of Abu Dhabi's strategic vision, including the Abu Dhabi Plan,

which focuses on ensuring the efficiency and sustainability of water and power supplies and improving demand management.

"There are tremendous opportunities for companies across the UAE to significantly reduce operational costs by making their buildings and facilities more energy and water efficient," said Mohamed Jameel Al Ramahi, Chief Executive Officer at Masdar.

The IPIC Square complex will be the first project undertaken by Masdar and BMS, involving the development of an asset management system and the delivery of energy, water and waste benchmarking analysis. The aim will be to provide

recommended no- or low-cost enhancement measures while exploring the viability of pursuing internationally recognised accreditation for the facility.

Commenting on the partnership, Nasir Al Nabhani, Managing Director of BMS, said, "By linking our asset management and value engineering background with Masdar's efficient energy, waste and water conservation specialism, we will be able to offer a unique service that could generate substantial savings, provide optimised operational efficiency, international accreditation recognition, and achieve corporate social responsibility targets for our customers."

'A quarter of India's energy demand can be met with renewable energy'



[New IRENA report suggests that increasing India's renewables would save 12 times more than it costs and enable the country to fulfill its pledges under the Paris Climate Agreement.](#)

India can raise its renewable energy use to meet a quarter of the country's total final energy demand by 2030, according to the findings of a report presented on 22nd August, 2017, by the International Renewable Energy Agency (IRENA).

Renewable energy prospects for India, a study from IRENA's REmap programme, outlines action areas that can unlock India's vast renewable energy potential, ensure clean and sustainable energy for generations to come, and enable the country to fulfill its pledges under the Paris

Climate Agreement.

Renewable energy prospects for India describes how solar energy will play a vital role representing the second largest source of renewable energy use with 16 per cent, followed by wind at 14 per cent, and hydropower at 7 per cent of the country's total final renewable energy use by 2030.

Biofuels — which can be used across the end demand spectrum, such as for transport, electricity generation and heating — would account for 62 per cent. The country could potentially increase

its share of renewable power generation to over one-third by 2030.

"With one of the world's largest and most ambitious renewable energy programmes, India is taking a leading role in the energy transformation both regionally and globally," said IRENA Director-General Adnan Z. Amin.

"India possesses a wealth of renewable resources, particularly for solar and bioenergy development, which can help meet growing energy demand, power economic growth and improve



e s f o r a b e t t e r t o m o r r o w

IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity.

energy access, as well as boost overall energy security.”

Increasing renewable energy deployment could save the economy twelve times more than its costs by the year 2030, creating jobs, reducing carbon dioxide emissions, and ensuring cleaner air and water, with savings on health-related costs.

Furthermore, the renewable energy technologies identified in the report would lower the demand for coal and oil products between 17 per cent and 23 per cent by 2030, compared to a business as

usual scenario.

“Balancing economic growth and development, environmental protection, and energy security is a real challenge in India that can be tackled by enabling more renewable energy deployment,” said Dolf Gielen, Director of Innovation and Technology at IRENA.

“Through this report we have attained a better understanding of India’s renewable energy potential that can assist in guiding the country’s energy policy in a way that is both economically and

environmentally attractive,” Gielen added at the World Renewable Energy Technology Congress in New Delhi, where he presented the main findings.

Meeting India’s electricity demand, which has grown by 10 per cent a year over the past decade, and attaining the country’s economic growth targets will require significant investments in power-generation capacity and related infrastructure, and in transport, buildings and industry sectors, creating important opportunities for renewable energy deployment. IRENA’s report shows that



investments in renewable energy capacity must more than double to make the most of India's potential.

Mobilising affordable financing and adapting new business models will be essential to achieve this.

India will also need to accelerate the transformation of its power system to integrate higher shares of renewables by strengthening transmission grids, reducing grid losses, and in general improving the resilience of the power system by investing in more flexible system that values demand-response, interconnectors and storage, as well as greater transport and power-sector synergies.

India's population and economic growth, combined with accelerating urbanisation, is expected to increase the number of people living in cities and towns from approximately 435 million in 2015 to 600 million by 2030. In addition, estimates suggest that 80 million households — roughly 300 million people — have limited or no access to electricity. Renewables can improve energy access for poor communities and bolster energy security through diversified, and largely indigenous, sources of supply.

Renewable energy prospects: India REmap analysis is part of IRENA's renewable energy roadmap programme, REmap, which determines the potential for countries, regions and the

world to scale up renewables to ensure an affordable and sustainable energy future. The roadmap focuses on renewable power technologies and technology options in heating, cooling and transport. The India study is the latest in the series of country-level REmap analyses, which includes countries such as China, Germany, Indonesia, Mexico, Russia and the US.





Heritage Forest Park in Ajman to contain 5,000 species of plants

The Al Raqaib Heritage Forest Park in Ajman, with a total area of one million square feet, will contain 5,000 species of plants.

The Municipality and Planning Department in Ajman is currently working to complete the project, to launch the park as soon as possible.

Sheikh Rashid bin Humaid Al Nuaimi, Chairman of the Ajman Municipality and Planning Department, highlighted the necessity of completing the project to launch the Al Raqaib Heritage Forest Park before October, as the first of its kind in the emirate, which also serves to preserve local heritage and cultural traditions.

While touring the site of the project, Sheikh Rashid stated that the park will reflect the emirate's noble and deep-rooted heritage, showcase its natural scenery, and promote its valuable legacy to visitors, allowing them to enjoy the species of trees that are endemic to the Arabian desert environment.

He also noted that some of the most important species of plants that can be seen in the park include *Prosopis*, *Leptadenia pyrotechnica*, *Salvadora persica*, *Ziziphus*, and various species of palms.

He explained that the Municipality and Planning Department desires to launch this important project to preserve valuable species of

trees, which requires everyone to become involved in their preservation.

"Caring about the environment is not a new thing, it is an ancient and deep-rooted duty that we have to undertake, which we have done for many years before the rest of the world began to care about the environment. It is our duty today to walk on the path of our founding father, the late Sheikh Zayed, and preserve all aspects of the nation's heritage, as well as its natural legacy and its ancient customs and traditions. That is why we decided to launch the Al Raqaib Heritage Forest Park, a heritage park with natural desert trees and all aspects of our heritage and traditional life in one place," he added.

Convention

60 c r e a t i n g g r e e n c o m m u n i t i e s

World comes together to tackle mercury poisoning



New global agreement enters into force to end health risks and environmental damage from mercury pollution. Exposure to mercury can harm the brain, heart, kidneys, lungs, and immune system, particularly in unborn children and babies.

The world's first Convention to protect the environment and human health in close to a decade, the Minamata Convention on Mercury, entered into force on 16th August, 2017, committing its 74 Parties to reducing the risks to human health and the environment from the harmful release of mercury and mercury compounds. Mercury is recognized to be particularly harmful to unborn children and infants.

Governments that are party to the Convention are now legally bound to take a range of measures to protect human

health and the environment by addressing mercury throughout its lifecycle. This includes banning new mercury mines, phasing-out existing ones, and regulating the use of mercury in artisanal and small-scale gold mining, manufacturing processes, and the production of everyday items such as cosmetics, light bulbs, batteries and teeth fillings.

The convention also seeks to reduce emissions as side effects from other industrial processes, such as coal-fired power stations, waste incineration, cement clinker production, and contains

measures on the interim storage of mercury, on mercury waste and on measures to reduce the risks of contaminated sites.

"The Minamata Convention shows that our global work to protect our planet and its people can continue to bring nations together. We did it for the Ozone layer and now we're doing it for mercury, just as we need to do it for climate change – a cause that the Minamata Convention will also serve. Together, we can clean up our act," said Erik Solheim, head of UN Environment.



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MERCURY IS a heavy metal which accumulates in the body and is listed by the UN as one of the top 10 chemicals endangering health and the environment.

There is no safe level of exposure to mercury nor are there cures for mercury poisoning, which at high levels causes irreversible neurological and health damage. Unborn children and babies are the most vulnerable, along with populations who eat fish contaminated with mercury, those who use mercury at work, and people who live near a source of mercury pollution or in colder climates, where the dangerous heavy metal tends to accumulate.

A 2017 study comparing mercury levels among women of child-bearing age in the Asia and

Pacific regions revealed high traces of mercury in 96 percent of the women tested from Pacific communities who have high fish diets.

As part of the Financial Mechanism of the Convention, the Global Environment Facility (GEF) has been charged with raising and disbursing grants for projects and programs to reduce and eliminate mercury pollution. On behalf of the GEF, "I am delighted to join others in the international community and celebrate the entry into force of the Minamata Convention on Mercury. It is an

honor for the Global Environment Facility (GEF) to be tasked with providing grants for projects and programs to reduce and eliminate the use of mercury. We are ready to continue to help countries conducting inventories, implementation plans, and investments in technology to make mercury history," said Naoko Ishii, GEF CEO and Chairperson.

Up to 8,900 tonnes of mercury are emitted each year. It can be released naturally through the weathering of mercury-containing rocks, forest fires and volcanic eruptions, but significant



emissions also come from human processes, particularly coal burning and artisanal and small-scale gold mining. Mining alone exposes up to 15 million workers in 70 different countries to mercury poisoning, including child labourers.

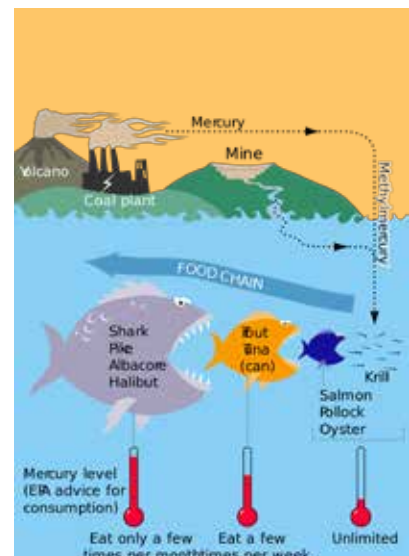
Other human activities that may be sources of mercury pollution include the production of chlorine and some plastics, waste incineration and use of mercury in laboratories, pharmaceuticals, preservatives, paints and jewelry. Since the element is indestructible, the Convention also stipulates conditions for interim storage and disposal of mercury waste.

Like other heavy metals, mercury

persists in the environment and builds up in human and animal tissue, particularly in fish. Because it is easily vaporized, mercury can be transported through the air over long distances far removed from its original emission source, polluting air, water and soil.

Signed by 128 countries, the Convention takes its name from the most severe mercury poisoning disaster in history, which came to light in Minamata, Japan in May 1956, after sustained dumping of industrial wastewaters into Minamata Bay, beginning in the 1930s. Local villages who ate fish and shellfish from the bay started suffering convulsions, psychosis, loss of consciousness

and coma. In all, thousands of people were certified as having directly suffered from mercury poisoning, now known as Minamata disease.





YOUNG CHAMPIONS OF THE EARTH



UN Environment reveals Young Champions of the Earth regional finalists

On 16th August, 2017, the United Nations Environment Programme announced a shortlist of regional finalists for the Young Champions of the Earth prize – a global competition aiming to identify, support and celebrate outstanding individuals between the ages of 18 and 30 with big ideas to protect or restore the environment.

From over 600 applicants, 30 regional finalists—all with emphatic track records of environmental commitment—were selected for having the most innovative, scalable and potentially impactful ideas.

Their proposals range from the deployment of solar-powered irrigation pumps to boost

agricultural productivity and foster peace in conflict zones, to the creation of floating eco-villages to help vulnerable communities adapt to rising sea-levels: and from sustainability advocacy through music and radio to the provision of healthcare services in return for recyclable trash.

“The future of our planet depends on our ability to innovate. And when it comes to environmental solutions, we’re only at the beginning of what I’m convinced will be a major economic revolution,” said Erik Solheim, head of UN Environment. “These regional finalists are examples of the passion, drive and creativity that will underpin the coming change. These young innovators

need to be empowered so that they can fulfill their potential and shape the future.”

Patrick Thomas, CEO of Covestro—a world-leading materials science company which sponsors the Young Champions of the Earth—remarked, “So much thought has gone into addressing the critical environmental concerns which clearly strike a chord with our regional finalists.”

Short biographies of the 30 regional finalists and summaries of their ideas including video pitches are now available on the Young Champions website (www.unep.org/youngchampions). Members of the public are encouraged to view and rate the proposals until 31 August.

Climate Change

64 c r e a t i n g g r e e n c o m m u n i t i e s

Climate change threatens agricultural trade in Pacific Rim economies, UN agency warns



Geographically, the negative impact of climate change on agricultural output could result in lower yields of rice, wheat, corn and soybeans in countries with tropical climates, compared with the impacts experienced by those in higher latitudes.

With global warming expected to significantly impact future yields in countries located closer to the equator, the United Nations agriculture agency has called on Asia-Pacific economies to take a leading role in adaptation and mitigation.

“Many Asia-Pacific Economic Cooperation, APEC, economies have already felt the full force of agricultural losses from natural disasters in recent years, with the vast majority of these being climate related,” said Kundhavi Kadiresan, Assistant Director-

General and FAO Regional Representative for Asia and the Pacific.

Geographically, the negative impact of climate change on agricultural output could result in lower yields of rice, wheat, corn and soybeans in countries with tropical climates, compared with the impacts experienced by those in higher latitudes.

Fisheries could also be affected by changes to water temperature, warned the Food and Agriculture Organization, FAO, on 25th August, 2017.

“The annual tally runs into the billions and billions of dollars in losses. So, the time to act is now. Policy makers need to prepare for changes in supply, shifting trade patterns and a need for greater investment in agriculture, fisheries, land and water management, that will benefit smallholder farmers and others that produce our food,” Kadiresan added.

Many vital agricultural regions in Asia are at risk of crossing key climate thresholds that would cause plant and animal productivity to decline, according



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MANY VITAL agricultural regions in Asia are at risk of crossing key climate thresholds that would cause plant and animal productivity to decline.

to a meeting in Viet Nam of Agriculture Ministers of APEC member economies.

Based on the findings of the global research community, the International Panel on Climate Change, IPCC, anticipates that these trends are expected to worsen in the future with the projected impacts of anthropogenic climate change.

The agriculture sectors account for at least one-fifth of total emissions, mainly from forest to farmland conversions; livestock and paddy production;

and application of synthetic fertilisers. Estimates show that 70 percent of the technical potential to reduce agriculture emissions occurs in tropical developing countries, which characterise much of Asia.

“It is imperative that we start thinking now about the hard decisions and actions that the APEC economies, and others, will need to take. Governments will need to consider greater social protection measures. Industry and trade will need to adapt to shifting supply and demand. There is no quick fix but there is every

reason to act,” Mr. Kadiresan stressed.

A second area requiring financing is also needed to support capacity-building of appropriate institutions and policies.

Climate funds could become an important catalyst for climate change adaptation and mitigation if they are used to build the enabling environment essential for climate-smart agricultural development, while ensuring that public agricultural investment is also climate-smart, and to leverage private finance.



Regional Cooperation to Face the Challenges of Desertification

Desertification in Africa is seriously affecting human health, food security and socio-economic status. Land degradation is a monstrous challenge for Africa where dry lands cover 65% of the continent. Africa loses about 280m tons of cereal crops from about 105m hectares of croplands every year due to soil erosion. Arid and semi-arid lands in Africa are home to about 400m people. Their poverty is both a cause and effect of desertification. Over cultivation, over grazing, bush fire and poor water management practices all contribute to desertification. Accordingly, over 50m people may move from sub-Saharan Africa to other parts of the world by 2020.

The problem is aggravated by political instability; and desertification is still the main strategic problem in Africa that requires both vision and political will to curb.

In order to face this serious challenge, a pan-African Great Green Wall (GGWall), 15 km wide and 7,100 km long from Dakar to Djibouti at the southern edge of the Sahara Desert, was proposed by the African Union to combat desertification. It crosses 11 countries in the region of 100 - 400 mm annual rainfall.

Sudan is a founding country where one third of the wall is to be planted with different types of trees extending 1,525 km. It is a grand project that requires cooperation & collaboration at the regional & global levels for funding and implementation. The recent Coastal-Deserts Summit in Nouakchott approved the establishment of an African Carbon Bank in Khartoum to become a source of funding for the GGWall using the Global Carbon Trading System. A Committee of 30 experts was formed for this purpose.

Based on all this, the Zayed International Foundation for the Environment has launched an initiative for activating regional cooperation to combat desertification via tree planting within the Pan African GGWall, taking advantage of the elaborate UAE experience in desert greening and the Zayed Foundation experience in planting millions of trees in the UAE as part of the Dubai Million Trees Planting Initiative.

The Foundation commissioned a high level delegation to collaborate with the Sudanese Ministry of Environment for planting trees in Sudan. The delegation visited Khartoum in August 2017 and organized a Seminar on "Regional Cooperation to face the Environmental Challenges of Desertification & Climate Change" at the National Council in Omdurman. It was attended by more than 100 participants representing federal & local authorities as well as universities. It was covered extensively by mass media and the news generated interest in both Sudan and the UAE in order to highlight this important issue and raise awareness about such urgent environmental challenges.

The Zayed Foundation delegation planted two trees within the GGWall in the West Omdurman region. The "Zayed Tree" was also planted at the Presidential Guest House in Khartoum.

This is a great initiative that will have a global impact and hopefully contribute to the stability of agricultural & pastoralist communities in Africa and add value to the efforts of resisting climate change, especially in Africa.

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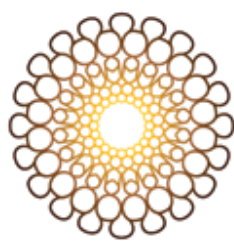
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